

## **APPENDIX A**

### **SAMPLE DATA SHEETS**

DC-1

DATA COLLECTION FORM  
NATURAL HAZARDS EFFECTS  
(Extreme Winds, Earthquakes)

A. GENERAL DATA

- \*1. Facility No. \_\_\_\_\_ 2. Building Name \_\_\_\_\_
3. Address \_\_\_\_\_ 4. City \_\_\_\_\_
5. State \_\_\_\_\_ 6. Zip Code \_\_\_\_\_ 7. Year Built \_\_\_\_\_
8. Date of Major Modifications or Additions, if any \_\_\_\_\_
9. Building Code Jurisdiction: City ☐ County ☐ State ☐ Federal ☐
- \*10. Latitude \_\_\_\_\_ \*11. Longitude \_\_\_\_\_
12. Current Bldg. Use \_\_\_\_\_ Orig. Bldg. Use \_\_\_\_\_
13. Basement Yes \_\_\_\_\_ No \_\_\_\_\_ Number of Basements \_\_\_\_\_
- No. of Stories Above Basement \_\_\_\_\_ (See also Item A23)
14. Height of First Story \_\_\_\_\_ ft.
15. Upper Story Height \_\_\_\_\_ ft. Special Story Height \_\_\_\_\_ ft.
16. Is the exterior of first story different from upper stories?
- Street Front Side Yes \_\_\_\_\_ No \_\_\_\_\_ Other Sides Yes \_\_\_\_\_ No \_\_\_\_\_
17. Approximate Roof Overhang Distance \_\_\_\_\_ Side \_\_\_\_\_
18. Proximity to Adjacent Buildings: Sketch Below with North Arrow
- North Side \_\_\_\_\_ South Side \_\_\_\_\_ East Side \_\_\_\_\_ West Side \_\_\_\_\_
- Note Street or Alley Sides \_\_\_\_\_

\*To be filled in by Field Supervisor.

Sketch

DC-2

19. Are plans available? \_\_\_\_\_ If so, where obtainable \_\_\_\_\_  
\_\_\_\_\_ Are original calculations available? \_\_\_\_\_ If so,  
where obtainable \_\_\_\_\_  
Name of: Architect \_\_\_\_\_ Engineer \_\_\_\_\_  
Contractor \_\_\_\_\_  
Regulatory Agency \_\_\_\_\_

20. Basic Building Plan

- a. Sketch overall plan.
- b. Locate shear walls, if any.
- c. Locate main frames.
- d. Locate expansion joints, if any.
- e. Give approximate north arrow and label sides "A", "B", "C", "D", etc.  
Show street or alley sides.
- f. Note any common or party walls.
- g. If plan changes in upper floors, sketch this plan and note level of  
change.

(Use additional sheet if necessary)

DC-3

**21. Elevation of Exterior Walls.**

- Sketch:**
- a. All openings or note pattern of openings.
  - b. Note exterior finish and appendages.
  - c. Note material of walls.
  - d. Major cracks or other damage. (Note if cracks are larger at one end.)
  - e. Note previously repaired damage.
  - f. Note any evidence of damage to cladding or appendages.

(Use additional sheet if necessary)

**22. Elevation of Interior Shear Walls.**

- Sketch:**
- a. All openings.
  - b. Major cracks or other damage. (Note if cracks are larger at one end.)
  - c. Note any previously repaired damage.

DC-5

## 23. Adaptability of Basement to Storm Shelter.

- a. Floor Over Basement - Concrete ☐ Other ☐
- b. If concrete, give thickness \_\_\_\_\_
- c. Available Space (approximate) \_\_\_\_\_ sq. ft.
- d. Dangerous Contents. Storage of Flammable Liquids ☐
- Presence of Transformers or Other Dangerous Equipment ☐
- Other Hazards \_\_\_\_\_
- None ☐

24. Is this a Vault-like Structure? Yes ☐ No ☐

25.

## EXTERIOR WALL SUMMARY SHEET

Exterior Characteristics	Side A	Side B	Side C	Side D
Extensive Architectural Ornaments or Veneer				
<b>WALLS</b>				
Metal Curtain Wall				
Precast Concrete Curtain Wall				
Stone				
Brick				
Concrete Block				
Concrete				
Other				
For Concrete Block and Brick, indicate R for Running Bond S for Stacked Bond				
Condition of Wall*				
<b>OPENINGS</b>				
Percent of Open Area per Story				

- \*1. No cracks, good mortar.  
 2. Few visible cracks.  
 3. Many cracks  
 4. Evidence of minor repairs.  
 5. Evidence of many repairs.

DC-7

**B. SITE RELATED INFORMATION****1. Exposure**

- a. Centers of large city ☐ b. Very rough hilly terrain ☐  
 c. Suburban areas, towns, city outskirts, wood areas, or  
 rolling terrain ☐ d. Flat, open country ☐  
 e. Flat coastal belts ☐ f. Other ☐

**2. Topography**

- a. Building on level ground ☐ b. Building on sloping ground ☐  
 c. Building located adjacent to embankment ☐

**\*3. Geologic formation** \_\_\_\_\_

**\*4. Location of known faults: Name** \_\_\_\_\_ **Miles** \_\_\_\_\_  
 \_\_\_\_\_ **Miles** \_\_\_\_\_

**\*5. Depth of water table** \_\_\_\_\_ **ft.** **When measured:** \_\_\_\_\_  
 (Month) (Year)

**\*6. Depth of bedrock** \_\_\_\_\_ **ft.****\*7. Soil type** \_\_\_\_\_**\*8. Bearing capacity** \_\_\_\_\_ **p.s.f., or** \_\_\_\_\_ **blows per inch****9. Proximity to potential wind-blown debris - Type** \_\_\_\_\_**Location** \_\_\_\_\_ **Distance** \_\_\_\_\_

**\*To be filled in by Field Supervisor.**



**C. STRUCTURAL SYSTEMS****1. Material**Concrete ☐ Masonry ☐ Steel ☐ Wood ☐**2. Vertical Load Resisting System**Frame ☐ Bearing Wall ☐ Wall and Pilasters ☐

For frame system, check one for typical column cross-section



Other

**3. Lateral Load Resisting System**Masonry Shear Wall ☐Braced Frame ☐Concrete Shear Wall ☐Moment Resisting Frame ☐Plywood Shear Wall ☐Are resisting systems  
symmetrically located? Yes ☐ No ☐**4. Floor System****Frame**Concrete Beams ☐Wood Beams ☐Steel Beams ☐No Framing Members ☐Steel Bar Joist ☐Precast Concrete Beams ☐**Deck**Concrete Flat Plate ☐Straight Sheathing ☐Concrete Flat Slab ☐Plywood Sheathing ☐Concrete Waffle Slab ☐Diagonal Sheathing ☐Steel Deck ☐Precast Concrete Deck ☐Wood Joists ☐Concrete Joists ☐Wood Plank ☐Concrete Plank ☐

Note if concrete topping slab is used over metal decks or concrete plank.

EC-9

**Connection Details**

Bolted

Welded

Metal Clips

Wire Fastener

No Connection

Nailed

Metal Hangers

**Framing****Decking To Framing**☐☐☐☐☐☐☐☐☐☐☐☐☐☐**Anchorage Floor to Walls**

Type \_\_\_\_\_

Spacing \_\_\_\_\_

**5. Roof System****Frame**

Concrete Beams

☐

Steel Truss

☐

Steel Beams

☐

Wood Truss

☐

Steel Bar Joist

☐

No Framing Members

☐

Wood Beams

☐

Precast Concrete Beams or Tees

☐

Wood Rafters

☐**Deck**

Concrete Flat Slab

☐

Concrete Waffle Slab

☐

Metal Decking

☐

Plywood Sheathing

☐

Concrete Slab

☐

Diagonal Sheathing

☐

Concrete Joists

☐

Straight Sheathing

☐

Precast Decking

☐

Concrete Fill

Yes ☐No ☐

DC-10

**Connection Details****Framing****Decking to Framing**

Bolted

☐☐

Welded

☐☐

Metal Clips

☐☐

Wire Fastener

☐☐

No Connection

☐☐

Nailed

☐☐

Metal Hangers

☐☐**Anchorage Roof to Walls**

Type \_\_\_\_\_

Spacing \_\_\_\_\_

**D. NONSTRUCTURAL ELEMENTS****1. Partitions****Type****Typical****Corridor**

Partial Height

☐☐

Full Height Floor-To-Ceiling

☐☐

Floor To Floor

☐☐

Movable

☐☐**Composition**Lath and Plaster ☐Gypsum Wallboard ☐Concrete Block ☐Clay Tile ☐Metal Partitions ☐

DC-11

## 2. Ceiling

## Typical Room

## Material

Acoustical Tile ☐ Gypsum Board ☐ Plaster ☐

## Method of Attachment

Suspended ☐ Metal Channels ☐ Tee Bar Grid ☐Attached Directly to Structural Elements ☐

## Typical Corridor

## Material

Acoustical Tile ☐ Gypsum Board ☐ Plaster ☐

## Method of Attachment

Suspended ☐ Metal Channels ☐ Tee Bar Grid ☐Attached Directly to Structural Elements ☐

## 3. Light Fixtures

## Typical Room

Recessed ☐ Surface Mounted ☐ Pendant (Suspended) ☐

## Typical Corridor

Recessed ☐ Surface Mounted ☐ Pendant (Suspended) ☐

## 4. Mechanical Equipment

## Location of Mechanical Equipment Room

Basement ☐ Other Floor ☐ Which Floor \_\_\_\_\_Roof ☐Is Equipment Anchored to Floor? No ☐ Yes ☐

## Location of The Following Units

Liquid Storage Tank \_\_\_\_\_

Cooling Tower \_\_\_\_\_

Air Conditioning Unit \_\_\_\_\_

DC-12

## 5. Roofing

## Description

Flat ☐ Arched ☐ Gabled ☐ If arched or gabled, sketch section.Pitched ☐ Slope ( :12)Parapet No ☐ Yes ☐ Height (\_\_\_\_ ft. \_\_\_\_ in.) Thickness (\_\_\_\_ in.)Material \_\_\_\_\_ Special Anchorage or Bracing Yes ☐ No ☐

## Type

Built-up gravel ☐ Gravel ☐ Asphalt or Wood Shingles ☐Clay Tile ☐ Other ☐

## 6. Windows

## Type

Fixed ☐ Movable ☐

## Frame Material:

Aluminum ☐ Steel ☐ Stainless Steel ☐ Wood ☐

Size: Average Size of Casing (\_\_\_\_ ft. x \_\_\_\_ ft.)

Average Size of Glazing (\_\_\_\_ ft. \_\_\_\_ in. x \_\_\_\_ ft. \_\_\_\_ in.)

## How Casing is Attached to Structure

Bolted ☐ Screwed ☐ Clipped ☐ Welded ☐ Nailed ☐

## Glazing Attachment to Casing

Elastomeric Gasket ☐ Glazing Bead ☐ Aluminum or Steel Retainer ☐Other ☐

## 7. Gas Connection

Flexible Connection to Building ☐ Rigid Connection to Building ☐Automatic Shut-off ☐ None ☐ Unknown ☐

INSPECTED BY \_\_\_\_\_

DATE \_\_\_\_\_

FIELD SUPERVISOR \_\_\_\_\_

FORM FMA-1

FACILITY NO. \_\_\_\_\_ EXPECTED SITE MODIFIED MERCALLI INTENSITY \_\_\_\_\_

FIELD EVALUATION METHODSTRUCTURAL SYSTEMS - EARTHQUAKE AND WIND RATING

VERTICAL RESISTING ELEMENTS							
Type	General Rating (GR)		Symmetry (S)	Quantity (Q)	Symmetry 1 Quantity Rating (SQR)	Present Condition (PC)	Sub-Rating 2 (SR1)
	E	W					
TRANSVERSE LOADING							
LONGITUDINAL LOADING							

## FOOTNOTES:

1. Symmetry-Quantity Rating (SQR) =  $\frac{S + Q}{2}$ .

2. Sub-rating SR-1 =  $\frac{SQR + 2PC}{3}$ .

TYPE	GENERAL RATING (GR)	
	Earthquake	Wind
A Steel Moment Resistant Frames	1	1
B Steel Frames - Moment Resistance Capability Unknown	2	2
C Concrete Moment Resistant Frames	1	1
D Concrete Frames - Moment Resistance Capability Unknown	2	2
E Masonry Shear Walls - Unreinforced	4	2 or 3
F Masonry or Concrete Shear Walls - Reinforced	1	1
G Combination - Unreinforced Shear Walls and Moment Resistant Frames	2	2
H Combination - Reinforced Shear Walls and Moment Resistant Frames	1	1
J Braced Frames	1	1
K Wood Frame Buildings, Walls Sheathed or Plastered	1 or 2	2 or 3
L Wood Frame Buildings, Walls Without Wood Sheathing or Plaster	4	4

SYMMETRY (of Resisting Elements)

- |        |                    |
|--------|--------------------|
| 1      | Symmetrical        |
| 2      | Fairly Symmetrical |
| 2 or 3 | Symmetry Poor      |
| 3 or 4 | Very Unsymmetrical |

NOTE: Add 1 (not to exceed 4) to each rating if a high degree of vertical non-uniformity in stiffness occurs.

QUANTITY (of Resisting Elements)

- |   |                                     |
|---|-------------------------------------|
| 1 | Many Resisting Elements             |
| 2 | Medium Amount of Resisting Elements |
| 3 | Few Resisting Elements              |
| 4 | Very Few Resisting Elements         |

NOTE: If exterior shear walls are at least 75% of building length, this rating will be 1.

PRESENT CONDITION (of Resisting Elements)

- |   |                             |
|---|-----------------------------|
| 1 | No Cracks, No Damage        |
| 2 | Few Minor Cracks            |
| 3 | Many Minor Cracks or Damage |
| 4 | Major Cracks or Damage.     |

NOTE: If masonry walls, note quality of mortar - good or poor. If lime mortar is poor, use next higher rating.

FACILITY NO. \_\_\_\_\_

FORM FMA-2

FIELD EVALUATION METHODSTRUCTURAL SYSTEMS - EARTHQUAKE AND WIND RATING

HORIZONTAL RESISTING ELEMENTS					
Type	Rigidity (R)	Anchorage & Connections (A)	Chords (C)		Sub-Rating (SR2)
			Longitudinal	Transverse	
Roof					
Floors					

Note: Sub-rating SR2 = Largest of R, A or C.

Type	Rigidity - Ratings
A Diaphragm	1. Rigid
B Steel Horizontal Bracing	1.5 Semi-rigid
	2.0 Semi-flexible
	2.5 Flexible

Anchorage and Connections - Ratings

- 1 Anchorage confirmed - capacity not computed, but probably adequate.
- 2 Anchorage confirmed - capacity not computed, but probably inadequate.
- 3 Anchorage unknown.
- 4 Anchorage absent.

Chords - Ratings

- 1 Chords confirmed, but capacity not computed.
- 2 Chords unknown, but probably present.
- 3 Chords unknown, but probably not present.
- 4 Chords absent.

FACILITY NO. \_\_\_\_\_

**FIELD EVALUATION METHOD**  
**EXIT CORRIDOR AND STAIR ENCLOSURE WALLS - EARTHQUAKE RATING**

TYPE OF WALL	REINFORCEMENT			ANCHORAGE					WALL RATING
	Present	Not Present	Not Known	Mortar Only	Dowels	Screws or Bolts	Other	Not Known	
Brick									
Brick									
Concrete Block									
Concrete Block									
Reinforced Concrete									
Tilt-up or Precast Concrete									
Steel Studs & Plaster									
Wood Studs & Plaster									
Hollow Tile									
Hollow Tile & Plaster									

NOTE: Wall Rating on Basis of A, B, C, and X.

FORM FMB-1



FACILITY NO. \_\_\_\_\_

FORM FMB-2

FIELD EVALUATION METHODOTHER LIFE HAZARDS - EARTHQUAKE RATING

TYPE OF RISK	RATING
Partitions Other Than on Corridors or Stair Enclosures	
Glass Breakage	
Ceiling	
Light Fixtures	
Exterior Appendages and Wall Cladding*	

Ratings  
 A = Good  
 B = Fair  
 C = Poor  
 X = Unknown

\*A description of some of the ratings for Exterior Appendages and Wall Cladding are:

Description	Rating
Spacing of anchors appears satisfactory	A
Size and embedment of anchors satisfactory	A
Spacing of anchors appears to be too great	B
Size and embedment of anchors appears unsatisfactory	C
Anchorage unknown	X
Anchorage corroded or obviously loose	C
No anchorage	C

EARTHQUAKE GAS CONNECTION		
Present	Not Present	Not Known

FACILITY NO \_\_\_\_\_

FORM FME

FIELD EVALUATION METHODCAPACITY RATIOS - EARTHQUAKE AND WIND RATING

	General Rating (GR)	Sub-Rating		Basic Structural Rating*	Capacity Ratio**
		SR1	SR2		
EARTHQUAKE					
WIND					

\*Basic Structural Rating =  $\frac{GR + 2 (\text{Largest of SR1 or SR2})}{3}$ .

\*\*Capacity Ratio for wind shall be obtained from Form FMC-1. For earthquake, the ratio is obtained from the Basic Structural Rating divided by the Intensity Level Factor at the site as determined from the table below.

Modified Mercalli Scale	Intensity Level Factor
VIII or Greater	1
VII	2
VI	3
V or Less	4

A description of Modified Mercalli Scale is included on table 3.3.

Capacity Ratio Rating	
Capacity Ratio	Rating (In Terms of Risk)
Less than 1.0	Good
1 through 1.4	Fair
1.5 through 2.0	Poor
Over 2.0	Very Poor

FEDERAL EMERGENCY MANAGEMENT AGENCY NATURAL HAZARD VULNERABILITY SURVEY DATA INPUT FORM																									COUNTY NAME (DO NOT PRINT)											
SECTION A: IDENTIFICATION																									NEAREST CROSS STREET											
STANDARD LOCATION		FACILITY NUMBER		PART NUMBER		SURVEY OFFICE		APPROVAL ACTION		TYPE OF SURVEY		SURVEY DATE		STRUCTURE TYPE		CHANGE LISTING RECEIVED IN					FOR FEMA USE ONLY															
										1 2 3 4 5 6 7		MO. YR.				STANDARD LOCATION					FACILITY NO.		EDS DATE		PUNCH DATE		OTHER UNIT NO.									
BUILDING NAME										BUILDING NO.					DIR		STREET NAME					CITY														
STATE		ZIP CODE		CITY CODE		ST. CODE		STREET NO.		STREET NAME		CITY		STATE		LATITUDE					LONGITUDE					SEA NO.					NO. DATE		FALL NO. DATE			
																DEG MIN SEC					DEG MIN SEC										MM		DD		YY	
SECTION B: STRUCTURAL																																				
DIMENSIONS										WEIR DIMENSIONS					FRAMES					SHEAR WALLS					DIAPHR					CONFIGURATION						
ELEVATION		WIDTH		CAYLONAL FEETING AND A		DE BUTE																														
CONNECTIONS & DETAILS										EARTH SHOCK					SECTION C: EARTHQUAKE																					
CONCRETE		STEEL		CONCRETE		STEEL		CONCRETE		STEEL		CONCRETE		STEEL		CONCRETE		STEEL		CONCRETE		STEEL		CONCRETE		STEEL		CONCRETE		STEEL						
SECTION D: WIND																																				
WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA		WIND SPEED		DESIGN DATA						
SECTION E: TORNADO										SECTION F: FLOOD																										
TORNADO		FLOOD		TORNADO		FLOOD		TORNADO		FLOOD		TORNADO		FLOOD		TORNADO		FLOOD		TORNADO		FLOOD		TORNADO		FLOOD		TORNADO		FLOOD						
SUPPORTED BY:		DATE		SUPPORTED BY:		DATE		SUPPORTED BY:		DATE		SUPPORTED BY:		DATE		SUPPORTED BY:		DATE		SUPPORTED BY:		DATE		SUPPORTED BY:		DATE		SUPPORTED BY:		DATE						

Fig. 1-2. Multi-Hazard DIF.

**A. IDENTIFICATION****9. STRUCTURE TYPE (Enter Number)**

1. Quonset, steel frame
2. Wood frame
3. Wall bearing
4. Steel frame
5. Reinforced-concrete frame
6. Steel/concrete frame
7. Tunnels
8. Mines

**Type floor & roof**

1. Wood joist
2. Wood/steel joist, shallow truss
3. Glulam
4. Precast concrete
5. Reinforced concrete slab
6. Flat plate
7. Metal deck/steel frame
8. Metal deck/open-web bar joist
9. Lightweight tension structure

**Type walls**

1. Masonry, unreinforced
2. Masonry, reinforced
3. Reinforced concrete
4. Precast concrete
5. Infill masonry
6. Corrugated-metal
7. Arch cladding
8. Wood sheathing
9. Stucco
10. Glass

**10. BASEMENT**

1. No basement

**Wood**

1. Wood joists
2. Plywood I-joist
3. Glulam
4. Heavy timber

**Concrete**

5. One-way joists or slab
6. Flat plate
7. Flat slab
8. Two-way slab
9. Waffle slab
10. Precast

**Combination**

11. Steel joist/concrete slab
12. Steel frame/concrete slab
13. Wood/steel joists

**D. STRUCTURAL****4. FRAMES (Enter Number)****a. Frame class****Wood**

1. Timber/pole
2. Braced frame

**Steel**

3. All metal
4. Pinned
5. Moment-resistant
6. Ductile moment-resistant
7. Braced frame

**Concrete**

8. Pinned
9. Slab/plate
10. Moment-resistant
11. Ductile moment-resistant
12. Braced frame
13. Lightweight tension structure

**Lightweight tension structure****Lightweight tension structure****b. Infill class**

1. Not infilled
2. Infill/partial infill unreinforced or partially reinforced masonry
3. Infill/partial infill reinforced masonry

**5. SHEAR WALLS (Enter Number)****Wood**

1. Plywood
2. Non-plywood

**Steel**

3. Plate

**Masonry**

4. Ordinary unreinforced
5. Nonmonumental unreinforced
6. Partially reinforced
7. Reinforced

**Concrete**

8. Poured-in-place
9. Precast

**Mobile/Temporary**

10. Mobile/Temp Module

**6. DIAPHRAGMS (Enter Number)****Wood**

1. Plywood
2. Non-plywood

**Steel**

3. Metal decking or diagonally braced

**Concrete**

4. Reinforced
5. Precast
6. Unreinforced
7. Lightweight tension structure

**7. CONFIGURATION (Yes/No/0 = does not apply)****8. CONNECTIONS AND DETAILING (Yes/No/0 = does not apply)****9. CONDITION (Enter Number)**

- 1 = good
- 2 = slight deterioration
- 3 = major deterioration

**10. EARTHQUAKE****2. BUILDING CODE (Enter Number)**

1. No seismic design
2. Some seismic design
3. UBC 1949-1970
4. UBC 1973+
5. Above average criteria

**3. SOIL**

(S = soft, H = hard)

**4. GEOLOGIC**

- 0 = no data
- 1 = low hazard
- 2 = intermediate
- 3 = high

**5. APPENDAGES**

(Yes/No/0 = no data)

**6. NONSTRUCTURAL**

- X = not present
- 0 = no data
- B = braced
- U = unbraced

**7. EARTHQUAKE PLAN (Yes/No/0 = no data)****8. WIND****2. EXPOSURE**

- (A or B)
- A. Protected
- B. Open

**3. DESIGN BASIS (Enter Number)**

1. No wind design
2. Some wind design
3. Code, 1961-1975
4. Code, 1976+

**7. MASONRY TYPE (Enter Letter)**

- a. Clay brick
- b. Clay tile
- c. Concrete block
- d. Concrete brick
- e. Adobe
- f. Stone

**9. INFILL (Enter Number)**

- 0 = no infill
- 1 = partial
- 2 = infill

**10. ROOF (Enter Number)**

1. Plywood
2. Non-plywood
3. Metal decking
4. Reinforced concrete
5. Precast
6. Unreinforced concrete
7. Lightweight tension structure

**11. ROOF/WALL CONNECTION (Enter Number)**

0. No data
- X. No connection
1. Plywood
2. Non-plywood
3. Metal decking
4. Reinforced
5. Precast concrete
6. Unreinforced concrete

**12. APPENDAGES (Enter Letter)**

- a. Glaze (%)
- b. Overhang (ft)
- c. Parapet height (ft)
- d. Arch panels (Yes/No)
- e. Large door width (ft)

**14. WIND EMERGENCY PLAN (Yes/No/0 = no data)****G. TORNADO SHELTER****1. TORNADO ZONE (Enter Number)**

- 1 = lower risk
- 2 = higher risk

<b>CONSTRUCTION:</b>	<b>OCCUPANCY:</b>	<b>CONFIGURATION:</b>	<b>CONTENTS:</b>
<u>FRC-HI</u> TYPE	<u>03/15</u> USE CODE	<u>4</u> # STORIES	<u>X</u> HAZARDOUS
<u>PRE 1939</u>	<u>VITAL</u>	<u>65 x 200</u> SIZE	<u>IMPORTANT</u>
<u>PRE 1973</u>	<u>HIGH DENSITY</u>	<u>CMPLX PLAN</u>	
<u>1920</u> DATE	<u>VULNERABLE</u>	<u>CMPLX ELEV</u>	<b>DECORATION:</b>
<u>RENOVATED</u>	<u>X</u> 8AM-6PM	<u>SOFT STORY</u>	<u>HEAVY</u>
<u>DATE</u>	<u>6PM-MDNT</u>	<u>OPEN FRONT</u>	<u>OVERHANGING</u>
	<u>MDNT-8AM</u>	<u>H = 45'</u>	<u>PUBLIC WAY</u>

**CONSTRUCTION**

EXT. WALLS: FACADE \_\_\_\_\_ SIDES 6" RC

INT. WALLS: BEARING \_\_\_\_\_ PARTITIONS \_\_\_\_\_

DIAPHRAGMS: FLOOR \_\_\_\_\_ ROOF \_\_\_\_\_

FRAME: BRACED; MOMENT RESISTING; OTHER: \_\_\_\_\_

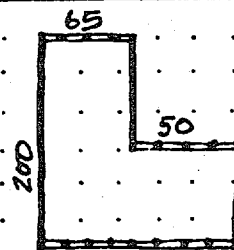
MISC. FIRE PROOF CONST

**CONFIGURATION**

STIFFNESS DISTRIBUTION:

PLAN L-SHAPE

PLAN SKETCH:

ELEVATION IRREGULAR

MISC. \_\_\_\_\_

**FUNCTION AND OCCUPANCY**

FLOORS: \_\_\_\_\_ - \_\_\_\_\_ USES: WAREHOUSE/OFFICE

FLOORS: \_\_\_\_\_ - \_\_\_\_\_ USES: \_\_\_\_\_

FLOORS: \_\_\_\_\_ - \_\_\_\_\_ USES: \_\_\_\_\_

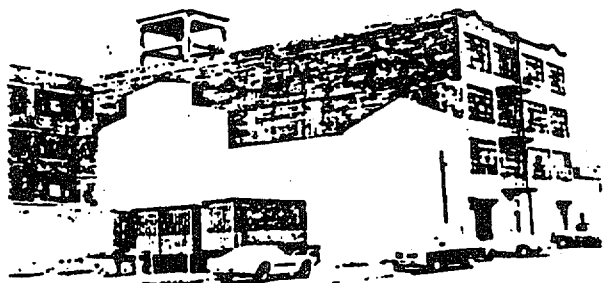


FIGURE A1-2.  
Sample Building Information Sheet.

**Construction Types Code:****Bearing Wall:**

B-UM    Unreinforced Masonry  
 B-RM    Reinforced Masonry  
 B-RC    Reinforced Concrete  
 B-PC    Pre-cast Concrete  
 B-WD    Wood (stud wall)

**Frame:**

F-ST-(HI, LI, HC, LC)    Steel  
 F-RC-(                    )    Reinforced Concrete  
 F-WD-(                    )    Wood (glu-lam, heavy timber)

↑                    ↑  
 Exterior skin (heavy infill, light infill, heavy  
 curtain, light curtain)  
 ↑  
 Frame material

**Use Codes:**

01    Apartment  
 02    Hotel  
 03    Office  
 04    Retail  
 05    Restaurant  
 06    Theatre  
 07    Auditorium  
 08    Gymnasium  
 09    Church  
 10    School  
 11    Hospital  
 12    Parking  
 13    Car Servicing  
 14    Manufacturing  
 15    Warehouse  
 16    Public facility  
 17    Public utility

**FIGURE A1-3. Key to sample Building Information Sheet.**

**CRITICAL FACILITIES**  
**FIELD INSPECTION BUILDING DATA SHEET**

1. NAME OF BUILDING \_\_\_\_\_ CENSUS TRACT \_\_\_\_\_  
 2. BLDG. ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ COUNTY \_\_\_\_\_  
 3. NO. OF OCCUPANTS \_\_\_\_\_ DAY \_\_\_\_\_ NIGHT \_\_\_\_\_  
 4. YEAR BUILT \_\_\_\_\_ 5. BLDG. SIZE (SQUARE FEET) \_\_\_\_\_  
 6. NO. OF STORIES/FLOOR \_\_\_\_\_ 7. BASEMENT? YES \_\_\_\_\_ NO \_\_\_\_\_  
 8. PRIMARY STRUCTURAL SYSTEM

- \_\_\_\_\_ A. STEEL FRAME  
 \_\_\_\_\_ B. STEEL FRAME (REINFORCED CONCRETE SHEAR WALL AROUND CENTRAL CORE)  
 \_\_\_\_\_ C. WALL BEARING  
 \_\_\_\_\_ D. PRECAST COLUMN AND BEAM  
 \_\_\_\_\_ E. REINFORCED CONCRETE FRAME  
 \_\_\_\_\_ F. REINFORCED CONCRETE FRAME (REINFORCED CONCRETE SHEAR WALL AROUND CENTRAL CORE)  
 \_\_\_\_\_ G. FLAT PLATE CONCRETE SLAB  
 \_\_\_\_\_ H. WOOD FRAME  
 \_\_\_\_\_ I. PLANK AND BEAM FRAME  
 \_\_\_\_\_ J. PRE-ENGINEERED METAL BUILDING  
 \_\_\_\_\_ K. OTHER STRUCTURAL TYPES DESCRIBE \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

9. FOUNDATION TYPE

- \_\_\_\_\_ A. SPREAD  
 \_\_\_\_\_ B. STRIP  
 \_\_\_\_\_ C. PILES  
 \_\_\_\_\_ D. CAISSONS  
 \_\_\_\_\_ E. SLAB ON GROUND  
 \_\_\_\_\_ F. OTHER

10. WALL TYPE \_\_\_\_\_

11. FLOOR/ROOF TYPE \_\_\_\_\_

12. SPECIAL FEATURES \_\_\_\_\_  
 \_\_\_\_\_

13. SPECIAL SOIL CONDITIONS \_\_\_\_\_  
 \_\_\_\_\_

## SINGLE AND MULTI-FAMILY HOUSING DATA SHEET

CENSUS TRACT (DISTRICT) \_\_\_\_\_

CITY \_\_\_\_\_ COUNTY \_\_\_\_\_

**A. SINGLE FAMILY RESIDENCES**

## 1) PREDOMINATE FOUNDATION TYPES

- A. \_\_\_\_\_ SLAB ON GROUND  
 B. \_\_\_\_\_ POURED CONCRETE OR MASONRY BLOCK FOUNDATION WALL  
 C. \_\_\_\_\_ STONE FOUNDATION WALLS  
 D. \_\_\_\_\_ OTHER

## 2) PREDOMINATE EXTERIOR WALL, VENEER OR FINISH

- A. \_\_\_\_\_ BRICK/MASONRY  
 B. \_\_\_\_\_ STONE  
 C. \_\_\_\_\_ WOOD-SIDING OR SHINGLES  
 D. \_\_\_\_\_ STUCCO  
 E. \_\_\_\_\_ OTHER

## 3) CHIMNEYS, PARAPETS, ORNAMENTATION OR OTHER FALLING HAZARDS \_\_\_\_\_

4) AGE \_\_\_\_\_ 5) HEIGHT \_\_\_\_\_

5) NO. OF OCCUPANTS DAY \_\_\_\_\_ NIGHT \_\_\_\_\_

**B. MULTI-FAMILY RESIDENCES**

## 1) PREDOMINANT STRUCTURAL TYPE

- A. \_\_\_\_\_ STEEL FRAME  
 B. \_\_\_\_\_ WALL BEARING  
 C. \_\_\_\_\_ CONCRETE FRAME  
 D. \_\_\_\_\_ FLAT PLATE  
 E. \_\_\_\_\_ WOOD FRAME  
 F. \_\_\_\_\_ PLANK AND BEAM

2) NO. OF OCCUPANTS DAY \_\_\_\_\_ NIGHT \_\_\_\_\_

3) AGE \_\_\_\_\_ 4) HEIGHT \_\_\_\_\_

5) STORIES/FLOORS \_\_\_\_\_



CENSUS TRACT						
	COMMERCIAL	NON-EDUCATIONAL	PUBLIC	UTILITIES	INDUSTRIAL	EDUCATIONAL
NO. OF BLDGS.						
STEEL FRAME						
WALL-BEARING						
CONCRETE FRAME						
FLAT PLATE						
WOOD FRAME						
PLANK AND BEAM						
PRE-ENGINEERED METAL						
1 STORY/FLOOR						
2-5 STORIES/FLOORS						
6-10 STORIES/FLOORS						
OVER 10 STORIES/FLOORS						
AGE PRIOR 1900						
1900-1929						
1930-1949						
1950-1969						
1970-PRESENT						

BUILDING ADDRESS:	BUILDING LOCATION (APN):
NAME OF BUSINESS TENANTS:	OWNERS NAME & ADDRESS:
TYPE OF USE:	NO. OF STORIES: _____ BASEMENT: _____
TYPE OF STRUCTURAL SYSTEM:	
BUILDING SIZE: Square Footage per floor: _____ Total: _____	OCCUPANT LOAD: (UBC-Table 33-A) _____
DATE OF ORIGINAL CONSTRUCTION: _____ DATE OF SUBSEQUENT REMOD./REPAIR AFFECTING THE STRUCTURAL SYSTEM: _____	
NAME OF ORIGINAL DESIGNER: _____	
NAME OF ORIGINAL CONTRACTOR: _____	
COMPANY RESPONSIBLE FOR SUBSEQUENT STRUCTURAL MODIFICATION: _____	
HISTORIC BUILDING CATEGORY: <input type="checkbox"/> YES <input type="checkbox"/> NO	
REMARKS:	

BUILDING ADDRESS: 550 Example * 552		BUILDING LOCATION (APN): 120-15-084
NAME OF BUSINESS TENANTS: 550 * 552 *		OWNERS NAME & ADDRESS: *
TYPE OF USE: 550 Coffee House 327x 552 Retail Store 327x		NO. OF STORIES: 1 BASEMENT: No
TYPE OF STRUCTURAL SYSTEM: C.B. & R.C. Beams & Cols. Flat Roof		
BUILDING SIZE: Square Footage per floor: 5475 Total: 7725		OCCUPANT LOAD: (UBC-Table 33-A) $\approx 100$ $\frac{1}{2}(5475) + \frac{1}{2}(5475) + \frac{2250}{100}$
DATE OF ORIGINAL CONSTRUCTION: 1951 DATE OF SUBSEQUENT REMOD./REPAIR AFFECTING THE STRUCTURAL SYSTEM: _____		
NAME OF ORIGINAL DESIGNER: N/A		
NAME OF ORIGINAL CONTRACTOR: _____		
COMPANY RESPONSIBLE FOR SUBSEQUENT STRUCTURAL MODIFICATION: _____		
HISTORIC BUILDING CATEGORY: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
REMARKS:  * Names omitted in this publication		

**BUILDING INSPECTION QUESTIONNAIRE**  
(Damage Estimation)

INSPECTORS NAME: \_\_\_\_\_ DATE: 5/9/85

IDENTIFICATION OF STRUCTURE: Bldg. #4

LOCATION: \_\_\_\_\_ ZONE: UBC 4

SPECIFIED INTENSITY (MMI): IX

**Adjacency Factor:**

The structure endangers another structure: yes  
The structure is endangered by another structure: yes  
The structure may be a support for another structure: yes  
The structure may be supported by another structure: yes

STRUCTURES USE: Residential \_\_\_\_\_ Commercial ☒ Industrial \_\_\_\_\_  
Special Facility no  
Lifelines no

**Importance Factor:**

Impact of structures' use in the regions' economy in the event of an earthquake. negligible

MISC. DATA: Year Structure Built 1890-1900 No. of Stories 1  
Floor area per story 1950 (Square Feet) (w/penthouse)  
No. of Occupants: Day 15 Night 0  
Potential no. of victims 15  
Is there a basement? no  
Is there a SANITARY crawl space? no

**BUILDING CONFIGURATION:**

REGULAR \_\_\_\_\_ Elevation Regularity yes  
IRREGULAR ☒ Plan Symmetry yes  
Offset center of rigidity maybe  
Discontinuity yes

SETBACKS yes

GEOMETRY OF BUILDING (Attach sketches showing overall dimensions, layout, window spacings and sizes):

Elevation View \_\_\_\_\_  
Plan View 15' x 110'  
Exterior Wall View \_\_\_\_\_  
Typical Shear Wall (core of corner) UHM

**NO. OF SEPARATION JOINTS:**

In Elevation none  
In Plan of Superstructure none

**EVALUATION**

-Plan Symmetry  
-Elevation Regularity  
-Redundancy of Bracing Elements

Transverse Direction  
good average poor  
good average poor  
good average poor

Longitudinal Direction  
good average poor  
good average poor  
good average poor

## SPECIAL CHARACTERISTICS:

BUILDING CLASSIFICATION SYSTEM 2.1.1.aSTRUCTURAL REDUNDANCIES: Frame Line no  
Plan no

## QUALITY OF CONSTRUCTION:

Good Avg. Poor

## Workmanship:

Visual Observation ✓ - -

Review of Documentation - - -

Analytical Studies - - -

## Overload History Weakening Structural Resistance:

\* Due to Earthquake - - -

Due to Fire - - -

Due to Extreme Environmental

Conditions - - -

## QUALITY OF DESIGN:

\* masonry cracks @ mortar jointsIs design regular or special? regularProper consideration of soil condition? unknownIs it designed for earthquake loading? noStructural ductility? noneDoes as-built structure conform to design? n/aOriginal designed base shear (kips)? n/aComputed existing base shear (kips)? n/aRatio of existing to original? unknown

## CONSTRUCTION MATERIALS:

Quality of materials used? averageComparison with original material specs? n/aMasonry or non-masonry? HEM

Reinforced or non-reinforced? \_\_\_\_\_

## SUPERSTRUCTURE

Continuous concrete wall? noConcrete columns with infill? noLarge heavy pre-cast structural elements? noOthers masonry pilaster and infill

Any signs of distress? \_\_\_\_\_

## FOUNDATION:

Type? spreadIs soil strength adequate? unknown - probably(Identify loose sands, sensitive clays, or highly cemented sands clayPossibility of landslide? noPossibility of settlement? no - has already occurredPossibility of sliding? noPossibility of overturning? noPossibility of liquefaction? noPossibility of uplift? no

## PRIMARY STRUCTURAL SYSTEM OR ELEMENTS:

Vertical load carrying elements? masonry pilasters  
 Lateral load carrying elements? NEM shear walls

## INTERIOR ENVELOPE:

## VERTICAL

## NON-VERTICAL

Walls gypsum  
 Doors/Windows wood/old  
 Others —

Floors concrete slab on grade  
 Ceilings gypsum  
 Others —

## EXTERIOR ENVELOPE:

## VERTICAL

## NON-VERTICAL

Walls masonry  
 Doors/Windows wood/old

Roofs tin built-up  
 Slabs concrete on grade

## EVALUATION:

Some columns added  
 to lower truss chord.  
 A second floor (attic)  
 was then placed  
 on the truss chord.

Possibility of buckling of x-bracings? no  
 Excessive deflections of long span floors and  
 roofs, etc.? no  
 Presence of cracks? yes - masonry walls  
 Excessive compressive force (Possibility of  
 crushing)? no  
 Additional openings and/or penetrations? no  
 Possibility of weak column strong beam? no  
 Additional closures (partitions)? no  
 Shear wall type and thickness? 8" NEM  
 Is suspended ceiling braced? no

## SECONDARY NON-STRUCTURAL SYSTEM OR COMPONENTS:

## ARCHITECTURAL:

## INTERIOR ELEMENTS

Lights hanging fluorescent  
 Ornamentations much  
 Finishes no  
 Partitions gypsum  
 Stairways timber/old  
 Shaftway —  
 Ceilings gypsum  
 Others —

## EXTERIOR ELEMENTS

Parapets yes  
 Ornamentations no  
 Marquees —  
 Overhangs no  
 Balconies no  
 Chimneys no  
 Railings no  
 Roofing tin w/ built-up over  
 Siding no  
 Cladding no  
 Fire Escape no  
 Canopies no  
 Veneers no  
 Others —

Possibility of collapse of infill materials? yes

## SERVICE SYSTEMS:

ELEVATORS: no  
 Possibility of cage falling? \_\_\_\_\_  
 Adequacy of cage guides and motor mountings \_\_\_\_\_  
 MECHANICAL forced air gas  
 ELECTRICAL old  
 SPRINKLER none  
 FIRE CONTROL SYSTEM none  
 FUEL (HVC) natural gas

Are service systems adequate? yes  
 Are service systems adequately mounted? no  
 Will they provide service after an earthquake? no  
 Possibility of failure in fuel system causing fire? slight  
 Adequacy of fire control system? no  
 Possibility of explosion? no  
 Possibility of release of toxic chemicals? no

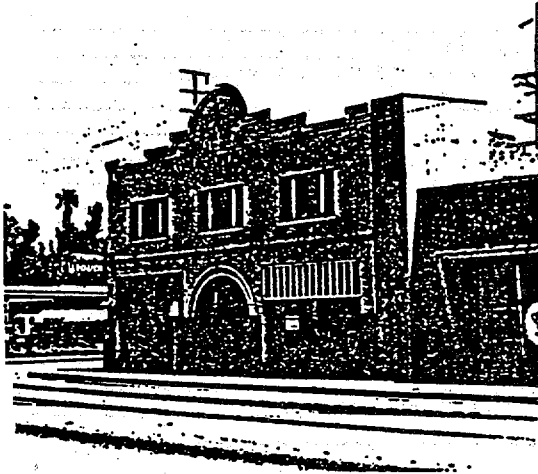
## CONNECTIONS:

Adequacy of connections between primary structural elements  
 to develop shear resistance? poor  
 Adequacy of connections between secondary non-structural  
 elements to develop shear resistance? poor  
 Adequacy of connections between primary structural elements  
 and secondary non-structural components to  
 develop shear resistance? poor  
 Adequacy of foundations connections? unknown

## General Remarks:

- a. Old URM building with timber roof trusses and sheet metal roof.
- b. Reasonably open interior from floor to roof trusses with a few wood stud/gypsum partitions.
- c. Trusses poorly attached to masonry pilasters.

## BUILDING DATA FORM



ADDRESS:

AREA: TARGET AREA II

BUILDING NAME:

OWNER:

OCCUPANCY TYPE: B-2 AND R-3

TYPE OF CONSTRUCTION: URM, STUCCO

NUMBER OF STORIES: 2

BUILDING HEIGHT: 24 FEET

CONSTRUCTION: 1912

PLANS AVAILABLE: NONE

## SUMMARIZE FINDINGS AND RECOMMENDATIONS HERE:

PRESENTLY VACANT. OWNER IS PRESENTLY IN PROCESS OF GUTTING THE BUILDING IN ORDER TO DO SEISMIC RETROFIT AND REMODELING TO OFFICE/COMMERCIAL USES. INTERIOR WALLS ON SECOND FLOOR REMOVED SHOWING STRUCTURAL LUMBER AND INTERIOR SIDE OF WALLS. OLD WOOD IN GOOD SHAPE. SECOND STORY FLOOR IS DIAGONALLY SHEATHED. NO MAJOR CRACKS OR OTHER STRUCTURAL WEAKNESSES NOTED.

SAMPLE



FIELD DATA

ROOF: FLAT

COVERING HOT-MOPPED TAR

PARAPETS: FRONT - MATERIAL: BRICK QUALITY GOOD MORTAR QUAL. GOOD  
THICKNESS 3" HEIGHT 2'-3" BRACED OR BOND BEAM: —  
OTHER REINF: NONE 7' AT FRONT

ARCHITECTURAL IMPORTANCE: POTENTIAL - UNIQUE STYLE

SIDE AND REAR WALLS: URM, STUCCO COVERED

CORNICES: MATERIAL: NONE

PROJECTION: —

OTHER OBSERVATIONS: ROOF TILE —

COPING —

TOWERS/CHIMNEYS —

SIGNS 3' x 7' PROJECTED OVER SIDEWALK

TANKS —

ATTIC: HEIGHT: — MATERIAL: —  
ANCHORS/BOND BEAMS: —

INTERIOR:

FLOORS: WOOD

INTERIOR WALLS: LATH & PLASTER

FRAMING: 2" x 6"

EXTERIOR:

ABUTTING BUILDINGS: SOUTH SIDE ONLY: TIRE STORE

STREET FRONT CONSTRUCTION: 4 LANE BOULEVARD

ARCHITECTURAL SIGNIFICANCE: POTENTIAL

LINTELS: ARCHED FRONT

THIN FACING OVER FRAMING:

SIGNS OR OTHER HAZARDS: ONE SIGN CANTILEVERED OVER FRONT SIDEWALK

OTHER OBSERVATIONS: EXPOSED BRICK ALONG BACK SIDE

SAMPLE

## SUMMARY OF CONSTRUCTION

## Exterior Walls:

N STUCCO OVER BRICK E EXPOSED BRICK S ABUTS OTHER BUILDING W 2 LARGER WINDOWS

## Notes:

Roof: FLAT

Floor(s): WOOD AND CONCRETE

Interior Walls BEING REMODELED FROM LATH AND PLASTER

Frame

Lintels ARCHED

Other: MEZZANINE, 2 STORE FRONT WINDOWS

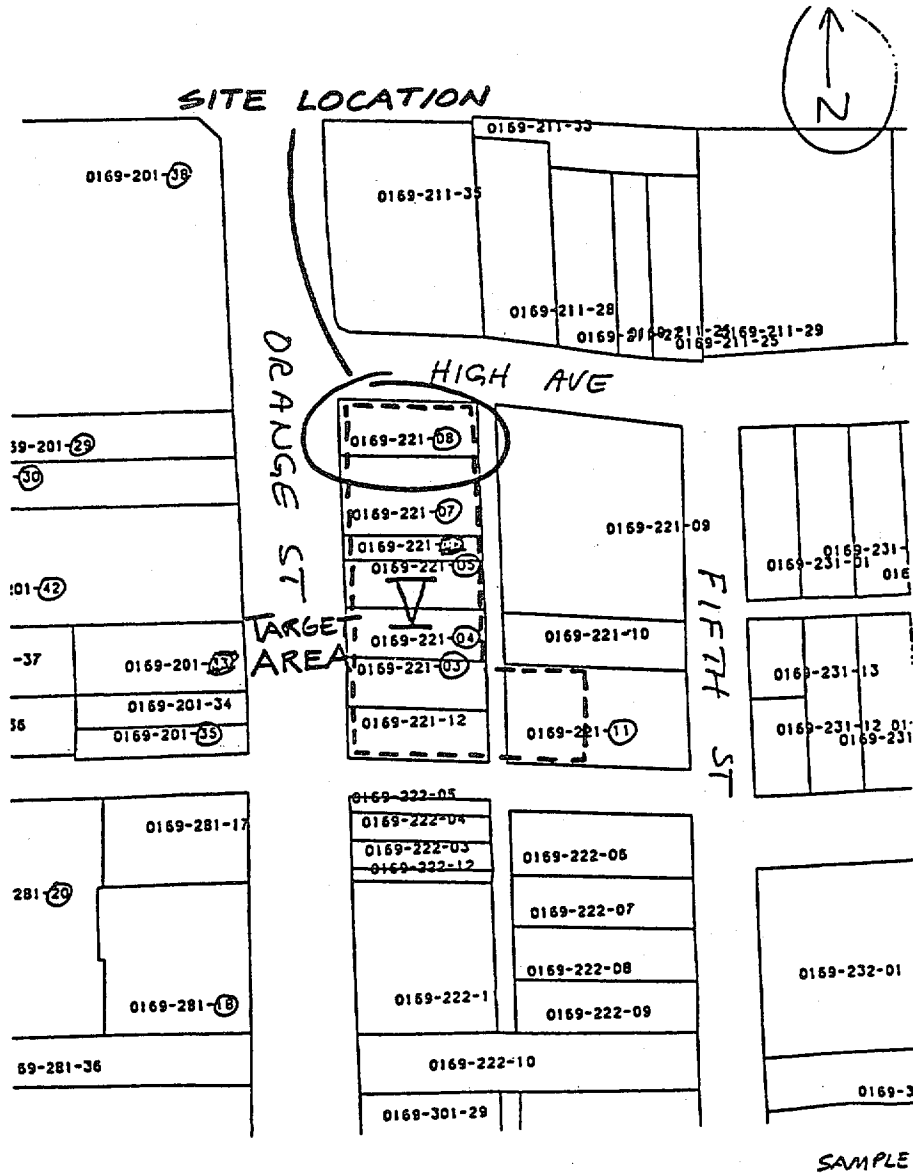
## POSSIBLE HAZARDS

- X Parapets
- Walls
- Gables
- X Signs
- Roof Tile
- Coping
- Facing
- Towers
- Marquees
- Cornices
- Ornamentation
- Chimneys Tanks

## OTHER NOTES OR REMARKS:

SAMPLE

SKETCHES AND NOTES



**CRITICAL FACILITIES  
BUILDING STRUCTURE CLASSIFICATION FORM**

Name of building \_\_\_\_\_  
 Address \_\_\_\_\_  
 \_\_\_\_\_  
 Census tract \_\_\_\_\_

Primary function of building \_\_\_\_\_

Year built \_\_\_\_\_ Year remodeled or rehabilitated \_\_\_\_\_

Plan sketch and dimensions:

Building length (parallel to street) L = \_\_\_\_\_ feet  
 Building depth (perpendicular to street) D = \_\_\_\_\_ feet  
 Building height (ground level to roof) H = \_\_\_\_\_ feet  
 Building size (L&D) A = \_\_\_\_\_ sq ft  
 Aspect ratio MAX(H/L,H/D) R = \_\_\_\_\_

Number of floors (ground floor and above) N = \_\_\_\_\_  
 Number of basements B = \_\_\_\_\_

1984 Replacement value \$ \_\_\_\_\_

Amount of earthquake insurance \$ \_\_\_\_\_

Underwriter's building classification \_\_\_\_\_  
     [ ] ISO  
     [ ] Other System: \_\_\_\_\_

SURVEY BUILDING CLASSIFICATION: \_\_\_\_\_

**STRUCTURAL SYSTEM**

- GENERAL TYPE:**
- ☐ (1) Mobile Home
  - ☐ (1) Wood frame
  - ☐ (2) All metal
  - ☐ (3) Steel frame
    - ☐ Simple
    - ☐ Moment resisting
      - ☐ One-way frame
      - ☐ Two-way frame
    - ☐ Ductile moment resisting
      - ☐ One-way frame
      - ☐ Two-way frame
    - ☐ Poured-in-place concrete fire-proofing
    - ☐ Shear walls
  - ☐ (4) Concrete frame
    - ☐ Precast elements
    - ☐ Moment resisting
      - ☐ One-way frame
      - ☐ Two-way frame
    - ☐ Ductile moment resisting
      - ☐ One-way frame
      - ☐ Two-way frame
    - ☐ Shear walls
  - ☐ (5) Mixed construction
    - ☐ Unreinforced masonry
    - ☐ Reinforced masonry
    - ☐ Tilt-up
  - ☐ (6) Special earthquake resistant  
(Requires written justification)

- EMERGENCY SYSTEMS:**
- ☐ Fire alarms
  - ☐ Heat and/or smoke detectors
  - ☐ Fire doors
    - ☐ Self closing
    - ☐ Automatic closing (Fusible link)

**EXTERIOR WALLS:**

Location: \_\_\_\_\_ story

Type: ☐ Bearing  
☐ Non-bearing  
☐ Curtain  
☐ Panel  
☐ In-filled

Material: ☐ Adobe  
☐ Wood  
☐ Cripple studs  
☐ Unbraced  
☐ Braced  
☐ Brick veneer  
☐ Stucco  
☐ Other Type: \_\_\_\_\_  
☐ Masonry  
☐ Hollow  
☐ Solid  
☐ Unreinforced  
☐ Reinforced  
☐ Brick  
☐ Tile  
☐ CMU  
☐ Concrete  
☐ Glass  
☐ Steel panels  
☐ Precast concrete panels  
☐ Other Type: \_\_\_\_\_

Percent of exterior wall openings: North \_\_\_\_\_  
East \_\_\_\_\_  
South \_\_\_\_\_  
West \_\_\_\_\_

Thickness: \_\_\_\_\_ in

Through-wall ties: \_\_\_\_\_

**INTERIOR WALLS:**

Location: \_\_\_\_\_ story

**Shear Walls:**

Type: ☐ None  
☐ Isolated  
☐ Core

Material: ☐ Masonry  
☐ Hollow

	<input type="checkbox"/> Solid	
	<input type="checkbox"/> Unreinforced	
	<input type="checkbox"/> Reinforced	
	<input type="checkbox"/> Brick	
	<input type="checkbox"/> Tile	
	<input type="checkbox"/> CMU	
	<input type="checkbox"/> Concrete	
	<input type="checkbox"/> Other	Type: _____
Thickness:	_____	in
Partitions:		
Type:	<input type="checkbox"/> Non-moveable	
	<input type="checkbox"/> Moveable	
Material:	<input type="checkbox"/> Wood studs	
	<input type="checkbox"/> Plaster	
	<input type="checkbox"/> Sheetrock	
	<input type="checkbox"/> Plywood panel	
	<input type="checkbox"/> Other	Type: _____
	<input type="checkbox"/> Metal studs	
	<input type="checkbox"/> Plaster	
	<input type="checkbox"/> Sheetrock	
	<input type="checkbox"/> Plywood panel	
	<input type="checkbox"/> Other	Type: _____
	<input type="checkbox"/> Plaster	
	<input type="checkbox"/> Masonry	
	<input type="checkbox"/> Brick	
	<input type="checkbox"/> Tile	
	<input type="checkbox"/> CMU	
	<input type="checkbox"/> Non-reinforced	
	<input type="checkbox"/> Reinforced	
Top:	<input type="checkbox"/> Below ceiling	
	<input type="checkbox"/> At ceiling	
	<input type="checkbox"/> At underside of upper floor/roof	
	Anchorage:	<input type="checkbox"/> None
		<input type="checkbox"/> Poor
		<input type="checkbox"/> Good
		<input type="checkbox"/> Excellent
Thickness:	_____	in

**FLOOR FRAMING:**

Location: \_\_\_\_\_ story

Type: ☐ Concrete slab on grade☐ Joists☐ Wood☐ Steel☐ Concrete☐ Not anchored☐ Anchored☐ Beam/girder☐ Timber☐ Steel☐ Concrete☐ Wood trussed joists☐ Concrete slab☐ Poured-in-place☐ Precast☐ Reinforced☐ Prestressed☐ Solid☐ Hollow☐ Ribbed☐ Waffel☐ Flat slab☐ Slab w/drops☐ Slab w/capitals☐ Slab w/drops and capitals☐ Precast elements Type: \_\_\_\_\_Deck: ☐ Wood☐ Steel☐ Concrete planks☐ Light concrete deck slab (LED 3")☐ Heavy concrete deck slab (GTR 3")☐ Other Type: \_\_\_\_\_Diaphragm: ☐ No☐ Poor☐ Good☐ ExcellentDiaphragm shear transfer connection: ☐ None☐ Poor☐ Good☐ Excellent



**ROOF FRAMING:**

Surface: ☐ Flat  
☐ Sloped  
☐ Curved

Type: ☐ Joists  
☐ Wood  
☐ Steel  
☐ Concrete  
☐ Not anchored  
☐ Anchored  
☐ Beam/girder  
☐ Timber  
☐ Steel  
☐ Concrete  
☐ Wood trussed rafters  
☐ Truss/purlin  
☐ Timber  
☐ Steel  
☐ Concrete slab  
☐ Poured-in-place  
☐ Precast  
☐ Reinforced  
☐ Prestressed  
☐ Solid  
☐ Hollow  
☐ Ribbed  
☐ Waffel  
☐ Flat slab  
☐ Slab w/drops  
☐ Slab w/capitals  
☐ Slab w/drops and capitals  
☐ Precast elements      Type: \_\_\_\_\_

Deck: ☐ Wood  
☐ Steel  
☐ Concrete planks  
☐ Light concrete deck slab (LEQ 3")  
☐ Heavy concrete deck slab (GTR 3")  
☐ Other      Type: \_\_\_\_\_

Diaphragm: ☐ No  
☐ Poor  
☐ Good  
☐ Excellent

Diaphragm shear transfer connection: ☐ None  
☐ Poor  
☐ Good  
☐ Excellent

ORNAMENTATION:

Exterior: Inadequately anchored ornamentation and/or  
veneer above the first story \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Stone coping on parapets, stone or pre-  
cast ledges, or sculptured sills and key-  
stones \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Interior: ☐ Suspended ceilings

☐ Tie wires

☐ Not looped

☐ Looped

☐ Lateral bracing

☐ None

☐ Wires

☐ Metal channels

☐ Suspended light fixtures

☐ Wire

☐ Chain

☐ Pendant (pipe / conduit)

☐ Poorly anchored chandeliers and/or  
other ceiling appurtenances

☐ Drop-in fluorescent light fixtures

☐ Bracket-mounted television sets \_\_\_\_\_  
\_\_\_\_\_

☐ Floor coverings \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

MECHANICAL/ELECTRICAL:

Heating Equipment: \_\_\_\_\_

Air Conditioning Equipment: \_\_\_\_\_

Electrical Generation and Distribution Equipment: \_\_\_\_\_

Elevators: \_\_\_\_\_

Escalators: \_\_\_\_\_

Miscellaneous Equipment: \_\_\_\_\_

Anchorage: (All equipment) \_\_\_\_\_

**UNUSUAL CONDITIONS:**

Previous EQ damage: \_\_\_\_\_

Settlement: (Differential settlement, cracking, bowing,  
leaning of walls) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Shear walls: (Symmetric or non-symmetric) \_\_\_\_\_

Lateral bracing: (Type) \_\_\_\_\_  
(Symmetric or non-symmetric) \_\_\_\_\_

Building shape: ☐ Rectangular  
☐ Triangular/L-shape/T-shape/H-shape  
☐ "Open front" (U-shape)

Columns: (Continuous, non-continuous) \_\_\_\_\_  
\_\_\_\_\_

Foundation: ☐ Above grade concrete piers or pedestals  
☐ Unreinforced  
☐ Reinforced  
☐ Above grade masonry piers or pedestals  
☐ Unreinforced  
☐ Reinforced  
☐ Tiedowns  
☐ Cross-bracing

Floors: (Cracking or sagging) \_\_\_\_\_

Swimming Pools: (On roofs) \_\_\_\_\_

Aspect ratio: R = \_\_\_\_\_

Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**HAZARDOUS EXPOSURES:**

Roof tanks:                      Number: \_\_\_\_\_  
                                    Purpose: \_\_\_\_\_  
                                    Size: \_\_\_\_\_  
Bracing/anchorage: \_\_\_\_\_

Roof signs: \_\_\_\_\_

Parapet walls: ☐ None  
☐ Unreinforced masonry  
☐ Reinforced masonry  
☐ Other    Type: \_\_\_\_\_

- ☐ Unbraced  
☐ Braced

Overhanging walls: \_\_\_\_\_

Chimneys: Height above roof: \_\_\_\_\_  
Material: \_\_\_\_\_  
Anchorage/bracing: \_\_\_\_\_

Pounding: \_\_\_\_\_

FOUNDATION:

- Type: ☐ Strip footings  
☐ Isolated footings  
☐ Mat foundation  
☐ Piles  
☐ Wood  
☐ Steel  
☐ Concrete  
☐ Caissons  
☐ Other Type: \_\_\_\_\_

SOIL TYPE/CONDITION: ☐ Rock or firm alluvium or well-engineered man-made fill  
☐ Soft alluvium  
☐ Poor (natural or man-made)  
Remarks: \_\_\_\_\_  
\_\_\_\_\_

**CRITICAL FACILITIES  
BUILDING STRUCTURE EARTHQUAKE VULNERABILITY RATING FORM**

**BUILDING:** \_\_\_\_\_ **CLASS PML =** \_\_\_\_\_

**MODIFICATION FACTOR =**  $[1.0 + (\text{SUM OF MODIFIERS})/100]$  . . . \_\_\_\_\_

**BUILDING PML =**  $(\text{CLASS PML}) * (\text{MODIFICATION FACTOR})$  . . . . . \_\_\_\_\_

**MODIFIERS:**

**1. Occupancy type** . . . . . \_\_\_\_\_

- (1) Office, Habitational, Hospital,  
Laboratory, School
  - ☐ ( -5) Low damageability
  - ☐ ( 0) Average damageability
  - ☐ ( +5) High damageability
- (2) Mercantile, Restaurant, Church
  - ☐ ( -10)
  - ☐ ( -5)
  - ☐ ( 0)
- (3) Manufacturing, Warehousing, Parking  
structure, Stadium
  - ☐ ( -15)
  - ☐ ( -10)
  - ☐ ( 0)

**2. Walls.** . . . . . \_\_\_\_\_

**A. Exterior walls**

- (1) Concrete, poured or precast
- (2) Masonry, reinforced solid or hollow
- (3) Metal
- (4) Glass
- (5) Stucco on studs
  - ☐ ( -5)
  - ☐ ( 0)
  - ☐ ( +5)
- (6) Masonry, unreinforced solid
  - ☐ ( 0)
  - ☐ ( +5)
  - ☐ ( +10)
- (7) Masonry, unreinforced hollow
  - ☐ ( 0)
  - ☐ ( +10)
  - ☐ ( +20)

**B. Interior walls and partitions**

- (1) Concrete, poured or precast
- (2) Masonry, reinforced solid or hollow
- (3) Plaster or gypsumboard on metal or wood studs
  - [ ] ( -5)
  - [ ] ( 0)
  - [ ] ( +5)
- (4) Masonry, unreinforced solid or hollow
- (5) Tile, hollow clay
  - [ ] ( 0)
  - [ ] ( +5)
  - [ ] ( +10)

**3. Diaphragms . . . . . -----****A. Floors**

- (1) Concrete, poured
- (2) Metal deck with concrete fill
- (3) Metal
  - [ ] ( -5)
  - [ ] ( 0)
  - [ ] ( +5)
- (4) Concrete, precast
- (5) Wood: maximum ratio LEQ 2:1 w/ length LEQ 150'
  - [ ] ( 0)
  - [ ] ( +5)
  - [ ] ( +10)
- (6) Wood: maximum ratio GTR 2:1
  - [ ] ( 0)
  - [ ] ( +10)
  - [ ] ( +20)

**B. Roof (Null modifier when building GTR 5 stories)**

- (1) Concrete, poured
- (2) Metal deck with concrete fill
- (3) Metal
  - [ ] ( -5)
  - [ ] ( 0)
  - [ ] ( +5)
- (4) Concrete, precast
- (5) Wood or gypsum: maximum ratio LEQ 2:1 w/ length LEQ 150'
  - [ ] ( 0)
  - [ ] ( +5)
  - [ ] ( +10)
- (6) Wood or gypsum: maximum ratio GTR 2:1
  - [ ] ( 0)
  - [ ] ( +10)
  - [ ] ( +20)

**C. Purlin anchors lacking (+10)**

4. Ornamentation. . . . .

A. Exterior

- ☐ ( -5)
- ☐ ( 0)
- ☐ ( +5,+10)

B. Interior (includes ceilings and floor covers)

- ☐ ( -5)
- ☐ ( 0)
- ☐ ( +5,+10)

5. Mechanical and Electrical Systems. . . . .

- ☐ (-10, -5)
- ☐ ( 0)
- ☐ ( +5,+10)

6. Unusual Conditions . . . . .

Include previous earthquake damage and repairs

- ☐ (-10, -5)
- ☐ ( +5)
- ☐ (+10,+25)

7. Hazardous exposures . . . . .

"Average" means "No exposure"

A. Roof tanks

- ☐ Null
- ☐ ( 0)
- ☐ ( +25)

B. Roof signs and overhanging walls

- ☐ Null
- ☐ ( 0)
- ☐ ( +5,+10)

C. Founding of adjacent buildings

- ☐ Null
- ☐ ( 0)
- ☐ ( +5)

8. Site dependent hazards . . . . .

A. Foundation materials

- ☐ ( 0) Rock or firm alluvium or well-engineered man-made fill
- ☐ (+10) Soft alluvium
- ☐ (+25) Poor (natural or man-made)

SUM OF MODIFIERS: \_\_\_\_\_

PRELIMINARY SCREENING

(PER INSPECTION DATA)

BUILDING NO. 55

INSPECTED BY SAF

DATE 1/15/86

DESCRIPTIVE TITLE  
(Current Use)

HOSPITAL BUILDING

CLASSIFICATION

ESSENTIAL

AVAILABILITY OF DESIGN DATA

DRAWINGS AND CALCULATIONS  
ARE AVAILABLE

## BUILDING DATA:

Number of Stories 3

Height 35'

Plan (Show Dimensions) 98' x 192'

## CONSTRUCTION:

Structural System

Structural Steel Frame

Roof

METAL DECK WITH LIGHTWEIGHT FILL

Intermediate Floors

METAL DECK WITH CONCR. FILL

Ground Floors

SLAB ON GRADE

Foundations

Interior Walls

Exterior Walls

LATERAL FORCE RESISTING SYSTEM

DMR SF TRANSV.  
BRACED FRAME LOUVER.

## EVALUATION:

General Condition

Earthquake Damage Potential

## DAMAGE OBSERVED:

## COMMENTS: